ORTECH
INTERNATIONAL
ANNUAL
REPORT
1991

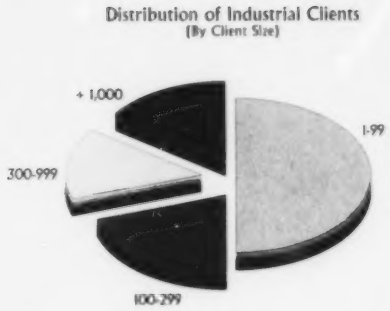
A Message from the Chairman

In 1991, ORTECH International shared in the economic trauma experienced by countless other organizations in Ontario. At the same time, however, it is particularly encouraging to note that for the twelfth consecutive year, more than 2,000 Canadian companies availed themselves of the services we provide.

To me, this statistic, more than any other, sends a message regarding the value Canadian industry attaches to a professional association with ORTECH. Underscoring this statistic is the fact that more than 70% of those Canadian customers represent the small and medium sized business sector. Despite the crippling effects of the recession, it is clearly evident that this sector of our economy continues to regard technology and innovation as a critical component of success.

The portfolio of technical services offered by ORTECH International is a resource which many companies in Canada must increasingly access as a means to increased competitiveness. More and more, governments are recognizing the dependency of these companies on such a resource if they are to survive in the highly competitive environment they are facing as the trend to globalization continues.

We are particularly gratified that the Government of Ontario has endorsed the need for technology and innovation as a platform for economic renewal. This endorsement is most clearly reflected in the support which the Government provides to ORTECH and its signalled intent of continued support in coming years. This action will permit ORTECH to fulfil its role as an instrument for achieving that economic renewal.



Derek Watchorn

92-05055/

Report of the President

The financial difficulties ORTECH experienced in 1991 were offset to some degree by technical successes on behalf of our clients. Typically for ORTECH, that clientele represents large, medium and small sized organizations, both the public and the private sectors, Canadian as well as foreign – with emphasis in the latter category on those in the U.S.

The brief statements appearing elsewhere on this page are indicative of some of the successes I mentioned, but I would like to dedicate additional space to two cases which, I believe, characterize what we deliver.

The president of a small, fledgling company, Phoenix Fibreglass Inc. of Oakville, Ontario, had an idea that recycled glass fibre could work as well as virgin fibre. At ORTECH, a multi-phase project has delivered a technology upon which Phoenix has filed a patent and in which the company has sufficient confidence to take to the marketplace. "When we walk out the door after our project at ORTECH," explains a company officer, " we will have a marketable technology that doesn't require further development."

Companies with less than 100 employees, like Phoenix Fibreglass, make up approximately 50 percent of our Canadian industrial client base.

On the other end of the spectrum, Delphax Systems of Mississauga, Ontario is a large established manufacturer of high speed ion page printers. With technical assistance from ORTECH, the company developed a device for sectioning stainless steel grid overlays in printed circuit boards. The new device reduces product cost as well as the number of production steps. According to Tom Beale, vice president of manufacturing, "The ECM process developed with assistance from ORTECH, is just one more step in this technology which will take Delphax to world class status in its manufacturing processes."

Larger companies, like Delphax, are the source of approximately 50 percent of our industrial revenues.

The funding provided by the Ontario Government through the Ministry of Industry, Trade and Technology has a direct bearing on ORTECH's ability to serve the constantly growing and ever changing technological needs of clients like Phoenix Fibreglass and Delphax Systems. I would like to thank the Ministry for their support and our own Board of Governors for their encouragement.

I would also like to express my admiration for the ORTECH staff. In a demanding year, it was their hard work, their resourcefulness and their dedication which continued the enviable reputation of ORTECH International as an integral cog in the industrial machinery of this Province.

Ross Lawford

Environmentally driven energy projects dealt with the control of emissions from thermal processes, including selection and contract management of a thermal afterburner at a printing plant and continuing development of selective catalytic reduction technologies for natural gas and coal combustion processes.

Specialty industrial coatings, in the form of two-layer metal coatings, were deposited on accelerometers and conductive wear resistant thin films were deposited on gravitometers for the aerospace industry.

Significant comprehensive compliance emission testing projects were carried out at a cement plant, a hazardous waste treatment site and a large power generating station.

Projects concerning recycling of supported PVC, on post-consumer mixed plastics waste and on the devulcanization of rubber were successfully carried out .

The ORTECH operated Ontario Waste Exchange experienced significant growth during the year, adding staff to handle in excess of 8,500 calls and exchanging more than 70,000 tonnes of waste.

License agreements were signed with Devtek Corporation of Markham, Ontario and Stewart and Stevenson Services of Houston, Texas for worldwide manufacturing and marketing rights respectively for the Gaseous Fuel Injection (GFI) system developed by ORTECH for fuel management of vehicles running on natural gas or propane.

ORTECH Corporation Financial Statements

Management's Report

The consolidated financial statements of ORTECH Corporation and its subsidiary and all information in the annual report are the responsibility of management.

The financial statements have been prepared by management in accordance with generally accepted accounting principles and include amounts that are based on our best estimates and judgements.

Management has developed and maintains systems of internal accounting controls and procedures in order to provide reasonable assurance as to the reliability of the financial records and the safeguarding of assets. The Corporation's independent auditors, Peat Marwick Thorne, provide an objective, independent review of management's discharge of their responsibilities as they relate to the fairness of reported consolidated operating results and financial position of the Company in accordance with generally accepted accounting principles.

The Audit Committee of the Board reviews the consolidated financial statements with management and the external auditors prior to submission to the Board for approval, as well as the recommendations of the external auditors for improvements in internal controls and the action of management to implement such recommendations.

PRESIDENT
G.R. Lawford

VICE-PRESIDENT,
FINANCE
B.T. Porter

Auditors' Report

The Board of Governors ORTECH Corporation

We have audited the consolidated balance sheet of ORTECH Corporation as at December 31, 1991 and the consolidated statements of income and retained earnings, fixed asset contributions and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these consolidated financial statements present fairly, in all material respects, the financial position of the Company as at December 31, 1991 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles.

Peat Marwick Thorne

Mississauga, Canada
March 12, 1992

Consolidated Balance Sheet ($000's)

Year ended December 31, 1991
with comparative figures for 1990

ASSETS	1991	1990
Current Assets:		
Accounts receivable	$ 6,675	$ 6,408
Work in process	947	–
Prepaid expenses	320	313
	7,942	6,721
Deferred pension costs (note 2)	592	672
Deferred costs	330	330
Investments (note 3)	1,447	1,547
Fixed assets (note 4)	12,147	11,844
	$ 22,458	$ 21,114
LIABILITIES AND CAPITAL		
Current liabilities:		
Bank indebtedness	$ 3,778	$1,208
Accounts payable and accrued liabilities	2,415	2,108
Billings in excess of work in process	–	158
Deferred revenue	925	925
Current portion of long-term debt (note 5)	206	181
	7,324	4,580
Long-term debt (note 5)	1,337	796
Capital:		
Capital contributions	3,363	3,363
Fixed asset contributions	4,118	4,339
Retained earnings for acquisition of equipment and facilities and to fund operations	6,316	8,036
	13,797	15,738
Commitments (note 7)		
	$ 22,458	$ 21,114

See accompanying notes to consolidated financial statements.

On behalf of the Board:

Governor

Governor

Consolidated Statement of Income and Retained Earnings ($000's)

Year ended December 31, 1991
with comparative figures for 1990

	1991	1990
Revenue:		
Professional services	$ 24,236	$ 24,912
Contributions from the Province of Ontario (note 6)	3,700	3,700
Royalty and other income	616	853
	28,552	29,465
Expenses:		
Salaries and benefits	17,492	17,023
Other costs of research	8,429	9,039
Depreciation expense less transfer from fixed asset contributions of $897 (1990 - $901)	1,600	1,663
General	2,408	3,097
Interest expense	343	217
	$ 30,272	$ 31,039
Loss for the year	(1,720)	(1,574)
Retained earnings, beginning of year	$ 8,036	9,610
Retained earnings, end of year for acquisition of equipment and facilities and to fund operations	6,316	8,036

See accompanying notes to consolidated financial statements.

Consolidated Statement of Fixed Asset Contributions ($000's)

Year ended December 31, 1991
with comparative figures for 1990

	1991	1990
Fixed asset contributions, beginning of year	$ 4,339	$ 4,564
Fixed asset contributions received from the Province of Ontario (note 6)	676	676
	5,015	5,240
Transfer to income	897	901
Fixed asset contributions, end of year	$ 4,118	$ 4,339

See accompanying notes to consolidated financial statements.

Consolidated Statement of Cash Flows ($000's)

Year ended December 31, 1991
with comparative figures for 1990

	1991	1990
Cash provided by (used in):		
Operating:		
Loss for the year	$ (1,720)	$ (1,574)
Items not involving cash:		
Depreciation	1,600	1,663
Gain on sale of fixed assets	(4)	(59)
Gain on sale of investments	(33)	(96)
Deferred pension costs (income)	80	(33)
Net changes in working capital items:		
Accounts receivable	(904)	(120)
Prepaid expenses	(7)	200
Accounts payable and accrued liabilities	307	(391)
Amounts received in advance for research and other projects	(468)	390
Deferred revenue	–	925
	(1,149)	905
Financing:		
Fixed asset contributions	676	676
Long term debt, net	566	977
	1,242	1,653
Investing:		
Proceeds from investments	1,644	1,410
Acquisition of investments	(1,511)	(583)
Proceeds on sales of fixed assets	8	64
Acquisition of land	(1,085)	(21)
Acquisition of apparatus and instruments	(1,076)	(2,738)
Acquisition of other equipment	(643)	(72)
	(2,663)	(1,940)
Decrease in cash for the year	2,570	618
Bank indebtedness, beginning of year	(1,208)	(1,826)
Bank indebtedness, end of year	$ (3,778)	$ (1,208)

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements ($000's)

Year ended December 31, 1991

The Corporation was incorporated under the Research Foundation Act, 1944 and operates under the name ORTECH International.

1. SIGNIFICANT ACCOUNTING POLICIES:

a. **Principles of consolidation**:
The consolidated financial statements include the accounts of ORTECH Corporation and its wholly owned subsidiary, Ordco Technology Limited.

b. **Work in process:**
Work in process is valued at net realizable value and is stated net of progress billings. The comparative financial statements have been reclassified to conform to the presentation adopted in 1991. 1990 progress billings exceed work in process and accordingly the net amount has been reflected as a current liability.

c. **Fixed assets and depreciation**:
Fixed assets are stated at cost less accumulated depreciation. Depreciation is provided on a straight-line basis at the following annual rates:

Asset	Rate
Buildings	3-1/3% and 5%
Apparatus and instruments	20% and 33-1/3%
Other equipment including assets under capital lease	6-2/3% to 33-1/3%

d. **Deferred costs**:
Deferred costs relate to specific projects where future revenue potential has been demonstrated. All other research and development costs are charged to earnings in the year incurred.

e. **Capital contributions**:
Capital contributions comprise the original capital sums donated by the Province of Ontario and industry.

f. **Fixed asset contributions**:
Fixed asset contributions received from the Province of Ontario provide external resources for the acquisition of fixed assets. These contributions are included in capital and are transferred to income over the estimated useful lives of the related assets.

g. **Deferred revenue**:
Deferred revenue represents advances from the Province of Ontario for the funding of operations.

h. **Income recognition**:
Professional services:
Professional services revenue is recognized on the basis of the percentage of completion of the work at estimated fees or at per diem billing rates depending upon the contractual agreements. Estimated losses on contracts are recognized when they become known.

Gain on sale of investments:
Net gains realized on the sale of investments are included in investment income.

i. **Pension expense and obligation**:
The pension expense for the year includes adjustments for plan amendments, experience gains and losses and changes in assumptions which are being amortized on a straight-line basis over the expected average remaining service life of the employee group covered by the plan.

2. PENSION PLAN:
ORTECH Corporation has defined benefit pension plans which cover substantially all of its employees. Pension fund assets at December 31, 1991 were $14,735 (1990 - $13,542). The actuarial valuation as at December 31, 1991 indicated that the present value of accrued pension benefits attributed to services rendered to that date was $10,160 (1990 - $9,198). Deferred pension costs consist of funding contributions in excess of current service costs and the accumulated impact of the amortization of experience gains.

3. INVESTMENTS:

	1991	1990
Short term investments, at cost	$ 70	$ 177
Bonds and debentures, at amortized cost	1,001	1,051
Common and preferred stocks, at cost	376	319
	$ 1,447	$ 1,547
Quoted market value	$ 1,651	$ 1,652

4. FIXED ASSETS:

	1991			1990
	Cost	Accumulated Depreciation	Net Book Value	Net Book Value
Land	$ 1,656	$ -	$ 1,656	$ 597
Buildings	13,336	8,552	4,784	5,266
Apparatus and instruments	24,144	19,829	4,315	5,079
Other equipment	3,726	2,334	1,392	902
	$42,862	$30,715	$12,147	$11,844

Apparatus and instruments include equipment under capital leases of $1,092 (1990 - $1,092).
Accumulated amortization on these assets is $411 (1990 - $134).

5. LONG-TERM DEBT:

	1991	1990
8.5% promissory note due September 30, 1996. Interest payable monthly	$ 750	$ –
Various capital lease obligations maturing in 1995. Fixed interest rates range from 12.85% to 13.95%. Monthly repayments of $25 include principal and interest.	793	977
	1,543	977
Current portion of long-term debt	206	181
	$ 1,337	$ 796

Interest of $108 (1990 - $89) relating to capital lease obligations has been included in interest expense.

6. CONTRIBUTIONS FROM THE PROVINCE OF ONTARIO:
In 1991 and 1990, ORTECH Corporation received a contribution from the Province of Ontario of $3,700 for operations and $676 for fixed asset additions.

7. COMMITMENTS:
The Company has future payments regarding operating leases as follows:

1992	$ 487
1993	184
1994	136
1995	81
	$ 888

Board of Governors and Officers

CHAIRMAN
D.J. Watchorn
Senior Partner
Davies, Ward & Beck

VICE CHAIRMAN
V.C. German
Corporate Director and former
President
Pilkington Glass Ltd.

VICE CHAIRMAN
P.A. Lapp
President
Philip A. Lapp Ltd.

MEMBERS
D.A. Chisholm
Corporate Director and former
Vice President, Technology and Innovation
Northern Telecom Canada Ltd.

D.M. Green
Chairman and Chief Executive Officer
Tridon Limited

R. Halsall
President
Robert Halsall & Associates Ltd.

R.F. Hawkins
President
Hawkins & Associates

H. MacDiarmid
President
Stormont Corporation

D.C. MacGregor
Chairman of the Board and
Vice President, Medical Research
Corvita Corporation

W.J. McClean
Vice President, Manufacturing and Development
IBM Canada Ltd.

E. Parliament
Corporate Secretary &
Director of Administration
Woodbridge Foam Corporation

C. Salomon
Senior Vice President, Marketing
Purolator Courier Ltd.

W.J. Schabereiter
W.J.S. Associates
Corporate Director and former
Corporate Vice President
COSMA International

J. Wolfson
Deputy Minister
Ministry of Intergovernmental Affairs

Officers

D.J. Watchorn, Chairman

V.C. German, Vice-Chairman

P.A. Lapp, Vice-Chairman

G.R. Lawford, President

W.D. Heaslip, Vice-President
Corporate Marketing

F.J. Hopton, Vice-President
Environmental & Materials Technologies

R.W. Neville, Vice-President
Electromechanical Engineering

B.T. Porter, Vice-President
Finance and Secretary-Treasurer

Committees

Audit / Finance
E. Parliament (Chair)
V.C. German
R.F. Hawkins
G.R. Lawford
*D.J. Watchorn

Board Policy
D.M. Green (Chair)
V.C. German
R. Halsall
G.R. Lawford
D.C. MacGregor
*D.J. Watchorn

Executive
D.J. Watchorn (Chair)
V.C. German
D.M. Green
P.A. Lapp
E. Parliament

Human Resources
R. Halsall (Chair)
D.A. Chisholm
G.R. Lawford
C. Salomon
*D.J. Watchorn

Strategy
P.A. Lapp (Chair)
D.A. Chisholm
G.R. Lawford
H. MacDiarmid
W.J. McClean
W.J. Schabereiter
*D.J. Watchorn

*ex-officio

Patents and Publications

Patents

Dual Fuel Natural Gas/Diesel 2-Stroke Engine - A. Welch, R. Skinner, W. Goetz

Electrically Actuated Gaseous Fuel Timing and Metering Device - C. Green, J. Wallace, (U of T)

Upgrading Heavy Oil - D. Tyrer

Biological Contact Gas Scrubber for Waste Gas Purification - M. McKim, B. Kahler

Buoyant Filter Media - M. McKim, B. Kahler

Publications

1453. Carter, S.A. *GFI Field Evaluations.* Proceedings of the 1991 Windsor Workshop on Alternative Fuels. Toronto. June 24-26, 1991. pp. 229-237.

1454. Carter, S.A. and Lawson, A. *An Automotive Gaseous Fuel Injection System (GFI) for Natural Gas (NGV) and Propane (LPG).* Proceedings of the Optimized Methanol & Natural Gas Fueled Vehicles Toptec. Nashville, TN. September 12-13, 1991.

1455. Ha, K., Carmichael, L., O'Connor, M., Albu, S., Quigg, D. and Pellegrin, V. *Demonstration of Durable Retrofit Diesel Particulate Trap Systems on an Urban Bus and Class 8 Truck.* SAE Paper #910332, SAE Congress. Detroit, Michigan. Feb. 25-Mar. 1, 1991.

1456. Ha, K., Sumar, M., Walsh, J., Skabowski, A., and Goldberger, L. *Particulate Trap Technology Demonstration at New York City Transit Authority.* SAE Paper #910331, SAE Congress, Detroit, Michigan. Feb. 25-Mar. 1, 1991.

1457. Johnson, N.D., Davidson, K., Cassaday, V., Wong, S. and Jaques, A. *Is Benzo(a)pyrene a Useful Indicator of Total PAH Emissions?* Proceedings of the Symposium on Emission Inventory Issues in the 1990s. Raleigh, N.C. September, 1991.

1458. Kilp, T. *Laser Marking of Plastics.* Conference Proceedings - ANTEC '91. Montreal. 1991. pp. 1901-1903.

1459. King, L. and Green, C. *Di-Methyl Ether as an Ignition Source for Heavy Duty Methanol Engines.* Proceedings of the IXth International Symposium on Alcohol Fuels. Florence, Italy. November 12-15, 1991. Vol. II, pp. 367-371.

1460. Lakshmanan, V.I. *Emerging Technologies in Hydrometallurgy.* Mineral Processing and Extractive Metallurgy Review. 1992. Vol. 8, pp. 219-228.

1461. Lakshmanan, V.I. and Tackaberry, P.D. *Waste Management and Mineral Leaching.* Proceedings, Occupational Safety and Health Symposium on Biotechnology. Montreal. March 21, 1991.

1462. Laughlin, R.G.W. and Varangu, L.K. *Waste Minimization: Before or After the Fact?* Proceedings of the Canadian Waste Management Conference. Toronto. November 1, 1991.

1463. Laughlin, R.G.W. and Varangu, L.K. *Accounting for Waste or Garbage Accounting: Some Thoughts from Non-Accountants.* Accounting Auditing & Accountability Journal. Vol. 4 No. 3. MCB University Press. 1991. pp. 43-50.

1464. Lawson, A. and Carter, S.A. *Emissions and Performance of New Generation Electronic Fuel Injected Natural Gas Engines.* Proceedings of the 84th Annual Meeting & Exhibition of the Air and Waste Management Association, Vancouver, B.C. June 16-21, 1991.

1465. Mayer, P.M., Luckevich, L., and Kuntze, R.A. *Subsitution of Chemical Gypsum for Natural Gypsum.* Second International Conference on FGD and Chemical Gypsum Proceedings, Toronto. May 12-15, 1991. pp. 25.1 - 25.19.

1466. Nazar, S., Law, F. and Miller, R. *Comparison of Condom Tensile Test Methods.* Conference Proceedings - ANTEC '91. Montreal. 1991. pp. 1841-1843.

1467. Rix, M.R.E. *Standard Test Method for Evaluating the Odor Potential of Automotive Coatings.* Recent Developments and Current Practices in Odor Regulations, Controls and Technology. Speciality Conference on Odors, Detroit, Michigan. 1991.

1468. Scholtz, M.T., Davidson, K.A. and Vana, F. *Preparation of a Canadian Inventory of Biogenic Volatile Organic Carbon Emissions from Vegetation.* Proceedings of the Symposium on Emission Inventory Issues in the 1990s. Raleigh, N.C. September, 1991.

1469. Veerasammy, R. *Conducting a Window Analysis.* Building Owner & Property Manager. A Southam Business Publication. February, 1992. pp. 33-34.

Assistance to Outside Organizations

ORTECH's activities are not limited to performing technical tasks for our clients. More than 40 members of this organization, including officers, directors, managers, scientists and engineers, spent countless hours, many of them outside the normal working day, contributing to the overall advancement of technology through service on various boards and committees of the following 70 organizations:

Advanced Food Technology Centre
Air and Waste Management Association
American Institute of Mining and Metallurgy
American Society for Testing and Materials
Association of Provincial Research Organizations
Building Thermal Envelope Coordinating Committee
Canadian Advanced Industrial Materials Forum
Canadian Construction Research Board
Canadian General Standards Board
Canadian Home Builders Association
Canadian Institute for Research in Atmospheric Chemistry
Canadian Institute of Mining and Metallurgy
Canadian Research Management Association
Canadian Special Olympics
Canadian Standards Association
Canadian Window and Door Manufacturers
CANMET - Minister's National Advisory Council
Centennial College
Compost Council of Canada
Conservation Council of Ontario
Durham College
Durham Region Manufacturers Association
Electrical Vehicle Association of Canada
Electronic and Electrical Manufacturers Association of Canada
Environment and Plastics Institute of Canada
Executive Women International
Federal Aviation Administration (US)
Federation of Societies for Coatings Technology
Financial Executives Institute
Group for Design in Business
Industry, Science & Technology Canada
Institute of Textile Science
Insulated Glass Manufacturers Association
International Association of Natural Gas Vehicles
International Global Atmospheric Chemistry Project
International Organization for Standardization
Malton Waste Reduction Advisory Committee
Management of Technology and Innovation Institute
Medec Waste Management Task Force
Mississauga Technology Association
National BIOMINET Committee
National Fenestration Research Council
National Fire Protection Association
National Research Council of Canada
National Safe Transit Association
Ontario Federation of Agriculture
Ontario Hydro
Ontario Ministry of the Environment
Ontario Waste Exchange
Ontario Waste Reduction Office
Pollution Control Association of Canada
Pollution Probe Foundation
Recycling Information Network Committee
Sheridan Park Association
Sheridan Park Credit Union
Small Motor Manufacturers' Association
Society of Automotive Engineers
Society of Mining Engineering
Society of the Plastics Industry
Standards Council of Canada
Technical Association of the Pulp and Paper Industry
The Metallurgical Society
The Mississauga Hospital Foundation
The Planning Forum
Transportation Association of Canada
U.S. Electrical Appliance Manufacturers' Association
Underwriters' Laboratory of Canada
University of Guelph
Waste Reduction Council in Flamborough
Women and Environments Education and Development Foundation

The ORTECH Team

Full Time Staff, as at March 1, 1992

Richard Abbott
Bill Abel
Sandra Allen
Paul Amariutei
Jeffrey Arsenault

David Bailey
Anna Maria Balenzano
Peter Barker
Chris Barringer
Syd Barton
Sarvjit Baraich
Roy Basconcillo
Tony Bascus
Franz Bauer
Jerry Bauerle
Barbara Beatson
Elizabeth Bedwell
Judith Beetham
Cathy Bell
Kevin Bellamy
Chris Belore
Nancy Belson
James Bennett
Malcolm Bingley
Kelly Bingley
Gregory Black
Jacquie Bobak
Anna Bokowa
Tony Bolus
Craig Booth
Ismay Bowen
Robert Bowen
Marco Bozzelli
Jack Brady
Barry Bridgman
William Brooks
Sally Broughton
Adele Brown
Aileen Bruce
Lou Bruno

Among ORTECH's 357 staff members, 30 are Ph.D.s . . .

Bruce Calder
Andrew Cameron
Hugh Campbell
Ken Cao
Suzanne Carlaw
Ian Carmichael
Steve Carter
Joe Caruso
Roger Chapman
John Christison
Lucio Cinelli
Daniel Clayworth
Mary Cochrane
Neal Cockshutt
Rob Collins
James Collins
James C. Collins
Connie Colton
Terry Cooper
Rick Copley
Carm Coppolino
Lynn Coulter
Jim Craigmile
Patricia Crewe
Ron Cross
Rick Cziraki

Bejoy Das
Keith Davidson
Dwayne De Bruyne
Barb DeJean
Bob Delaat
Nicole deLint
Joe Deshane, Jr.
Vijay Deshpande
Parminder Dhillon
Lou Di Pasquale
Lorna Dias-D'Souza
Evelyn Dithurbide
Monika Dobson
Lothar Doehler
Jeffrey Dong
Piotr Drozdz
Isobel Duncan
Tom Duncan
Stephen Dunlop
Jack Dunn
Steve Dyck
Damjana Dzeko

Peter Edwards
Lyndia Edwards
Ghassan El-Tawil
Paul Elder
Bob Elliott
Denise Enta

Ed Faber
Bill Fairbrother
Mike Fancy
Joan Farr
Larry Fast
David Favarger
Mike Featherstone
Brenda Ferguson
John Flack
Bill Fossen
Bradley Fox
Fritz Frey

Karyn Gallant
Bob Gallinger
Ricardo Gardeazabal
Arlene Gauryletz
Paul Geisberger
Andy Germuska
Don Giannini
Nick Giannone
Malcolm Gibbon
Cyril Gibbons
Bruno Gilbert
Phil Girard
Cindy Glass
Wendel Goetz
Maynard Gorospe
Steve Goyeche
Chris Green
Peter Grinbergs

. . . We have 124 technicians and technologists . . .

Kong Ha
David Hacker
Segundo Haduca
Mary Jane Hanley
Richard Hannaby
Susan Hannah
Andy Hansmann
Tim Harrison
Paul Haskins
Helen Hawkes
Steve Haynes
David Heaslip
Shabniz Hemraj
Tom Henderson
Bill Hickinbotham
Robert Hicks
Michael Hincks
Jeffrey Ho
Tom Hodgins
Cee Holter
Sandra Hood
Fred Hopton
Wendy Horn
Art Horton
Susan Horton
Wanda Howe
Phil Humphrey
Paul Hyde

Vic Iafrate

John Jaremkow
Doug Johnson
Robert Johnson
Shelley Johnson
Susan Johnstone
Bill Jones
Tom Judek

Maria Kappos
Laura Kee
Heather Kemp
Tom Kilp
Tom Kingry
Elizabeth Kirby
Walter Klein
Michael Knappers
Henry Kneblewski
Cecylia Kneblewski
Susan Kormylo
Nick Kosmal
Goldie Kozelj
Karl Kozole
Michael Krynski
Elaine Kubota
Uwe Kuhn
Ed Kuley
Brett Kyle

Lucky Lakshmanan
Charlie Langille
Jim Larocque
Troy Lassau
Bob Laughlin
Fred Law
T.K. Uri Law
Ross Lawford
Alex Lawson
Omer LeBlanc
Don LeBlanc
Richard Lederle
Shirley Leeson
Jacob Leidner
Dave Leslar
Andrew Leung
Chun Keung Leung
Susan Levesque
Al Lewis
Scott Librock
Jane Lindsay
Deming Liu
Lou Lombardi
Bill Longley
John Lopatynski
Dianne Lougheed-Scott
Lydia Luckevich
Peter Lui
Doug Lyons

Anne MacDonald
Darryl MacDonald
Bill MacDonald
Terry Mah
Bibi Mahadeo
Al Major
Walter Malis
Tak Ming Man
Brian Manicom
Aldo Marascio
Janice Martin
Geza Matolcsy
Fat[illegible] Matos
Gw[illegible] Matthews
Pe[illegible] Mayer
Nancy McDonald
Stephen McLay
Irene McMullen
John McNeill
Ellen Meadd
Manuel Mendoza
Lora Micelli
Ed Micsko
Dennis Molyneaux
Mario Moniz
Michael Moorhead
Sharon Mugford
Greg Murawsky
Gordon Mutch
Bailey Mylleville

Hossein Naghdianei
Steve Nazar
Ron Neville
Sheila Newman
Ron Ng
Ron Nuttley

Brian O'Connor
Randi O'Driscoll
Frank O'Hara
Lorna O'Hearn
Jiri Opletal
David Ord

Neil Parent
John Paterson
Glen Pelling
Jan Petley
Peter Piersol
Vincey Pisani
Rob Polyoka
Bruce Porter
Nada Poturica
Bill Prendergast
Joyce Price
Michael Prince
John Purse
Joe Pust

Edwardo Quijano

Rick Raininger
Ofelia Ramos
Diana Reilly
Maria Reisinger
Doug Renton
Lincoln Reynolds
Jim Riendeau
Marc Rishea
Michael Rix
Wayne Robinson
Dave Robinson
Neil Roelfsema
Pat Ross Smith
Llewellyn Rowlands
Maxine Russell
Tony Russiello
Ryan Rybchuk

. . . a total of 188 staff members with B.Sc. or M.Sc. degrees . . .

John Savage
Jake Schaeffer
Bernhard Schmidt
Trevor Scholtz
Ursula Scholz
Maureen Schulz
Harry Schulz
Peter Schuster
Madelene Searson
Brian Sellars
Mike Shaw
Cathe Shaw
Eric Sheffield
Jim Shields
Eric Simmons
Andrew Sinclair
Josef Sircelj
Pay Skinner
Joseph Skobla
Duncan Smith
Brad Smith
Ian Smith
Walter Sowa
Rick Stewart
Richard Stothers
Liz Strain
Hubert Stromberger
Mehboob Sumar
Mark Szumigaj

Patrick Tackaberry
Don Taylor
Jane Templeman
Jackie Terry
Colin Tham
Gordon Thomas
Steve Thorndyke
Dave Thurston
Joanne Toms
Peter Top
Aarne Tork
Pauline Town
Leonid Triger
Virginia Trimble
Esther Tsoi
John Tyler
Ed Tyrcz

Hank Van Bakel
Gerald Van Wyngaarden
Linda Varangu
Renato Veerasammy
Marisa Viani
Glenn Vicevic
John Voges

Jamie Walker
Hugh Walker
Donna Walker Bradley
Greg Wallace
Walter Webb
Donald Webb
Carl Wei
Olga Wells
Larry West
Kevin White
Darryl Wilde
Rick Williams
Bryan Williamson
Pat Wilson
Bill Wilson
John Wilson
Bill Winnitoy
Stasia Wirzman
Joanne Wojna

Wieslaw Zaton
Gael Zillman
Moe Zolghadr

. . . and 42 Professional Engineers.